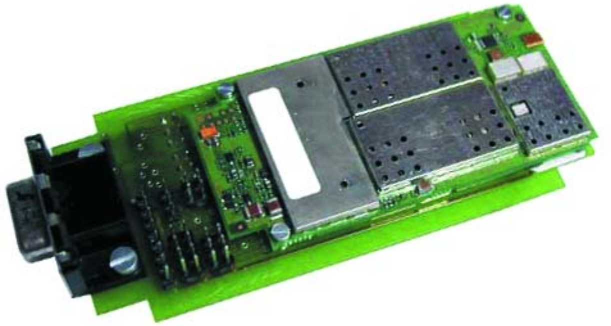
GSM Modem

Interfacing your own equipment to GSM devices has been made difficult by the manufacturers because they don't use standard connectors, very little information is made available, and a few other similar reasons. This is a pity since the AT command set has been extended especially for GSM. These AT commands have been used for years in ordinary modems and are fairly easy to use. The arrival of GSM has led to the addition of a number of commands, making the sending of SMS messages and such like possible.

If you tried to interface an off-the-shelf GSM phone to your own circuit, you would first have to find out which signals go to which pins on the GSM connector. If you only need to use AT commands, then it is sufficient to look for the RxD and TxD pins and a ground on this connector. Unfortunately this is only half the work, since you still have to find a plug that fits into the GSM connector. These two obstacles prevent many people from experimenting with GSM. And that is despite the fact that there are many applications where the addition of a GSM link would be very useful.

UbiCom, a German company, has recently begun to market several GSM products, of which the GSM Triband Modem and GSM Dualband Modem are highly suitable for experimentation with GSM. These GSMs have been specifically designed to be incorporated in existing equipment and therefore don't have a display, a keypad or any other unnecessary extras. Obviously this also keeps the cost down, which is a bonus.



These modems can be used with a standard RS232 cable; just connect a power supply and antenna and you're ready to start experimenting! You do of course have to insert a valid SIM card into the GSM.

As far as driving the GSM is concerned you are on your own, but it is not difficult to control the GSM with AT commands using a microprocessor. As an example, this could be used to transmit the current room temperature or to receive an SMS message that causes the microprocessor to set your room thermostat to a specific temperature.

More information about these GSM modems can be found on the Internet (www.ubicom.de). We're not sure how widely these are available, but it should always be possible to order the devices directly from UbiCom. (024105-1)